- 1. OVERVIEW: The J5 Strategy Division is responsible for informing USSOCOM's understanding of the global security environment, which helps us articulate appropriate strategy and force development requirements. The Key Strategic Issues List (KSIL) is a set of questions we believe to be relevant in attempting support this understanding and is built around trends expected to continue for the next 10 to 20 years. This is a living document and it will change to address other questions as we are able to generate satisfactory answers to some, while identifying additional questions we would like to explore.
- 2. <u>DISCUSSION</u>: In addition to using these questions as a method to focus our own thinking and research, we use the KSIL as a tool to conduct engagements with outside organizations. They are used to both spur discussion and to notify others what our interests are. In cases where outside organizations share these interests, the KSIL provides a list of potential research topics. We are building a network intended for sharing insights and research products to better inform strategic thinking. We continue to look for opportunities to get involved with researchers and receive feedback related to our questions. In some cases, we have sponsored travel to USSOCOM for briefings on the findings of a research project related to the question list to general officer-level personnel. If you are interested in working with us on one of our questions (with your organization or individually), please contact us through one of the individuals below.

3. KEY POINTS: The KSIL is:

- 1. Aimed at improving understanding of global conditions and trends to enable better strategy for SOCOM.
- 2. Intended to invite debate among competing perspectives; multiple perspectives on a single question are valuable.
- 3. Relevant for academic inquiry to encourage participation from both civilian universities and professional military education schools.
- 4. Focused around: What should be keeping us up at night when we think about the future?
- **4.** What follows is a summary list of the KSIL and individual one-page descriptions with objectives and pertinent research themes to support a comprehensive understanding of each strategic issue.
- **5.** Our points of contact for this list are Lieutenant Colonel Tom Nagle at 813-826-3132, and Mr Bob Jones at 813-826-1294. Please send emails to J5KSIL@socom.mil.

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^{*} Note: We are not currently contracting for work on these questions.

- 1. <u>WMD</u> Are current policies and actions advancing or undermining our counter-proliferation intentions? Are the incentives for the acquisition and/or use of WMD rising or subsiding at the state level? What about the incentives for transfer of WMD to non-state actors? How can the US favorably change these incentives? How can USSOCOM better contribute to counter-proliferation efforts?
- 2. <u>Information/Digital Age</u> Does the Information/Digital Age impact the nature of stability? What are the implications of increasingly numerous empowered individuals? How does information transparency affect the interactions of states? What are the implications for our military operations and engagements? Are there opportunities? What are the specific implications for SOF in Cyber Warfare?
- 3. Shifting Power Distribution & Diffusion Is the nature of power changing on the international stage? If so, is it doing so uniformly (i.e., is there a common understanding of "what matters" across regions)? Are power shifts creating a higher likelihood of conflict? If so, among and between which groups? Are today's shifts in power unique, or largely similar to historical experience? How does this change how SOCOM/TSOCs/SOF conduct engagements and the range of SOF activities?
- 4. <u>Megacities</u> Do rapidly growing cities with massive urban slums pose a substantial challenge to vital US national interests? What are the critical distinctions between such cities in developing versus developed nations? What is the basis of control/ power/ influence within a megacity? Who is most likely to wield it (governments, gangs, tribes, or anarchy)? Is it possible to create advantageous strategic effects under these conditions? Is the megacity environment unique for SOF? If so, what capabilities are required for understanding it and conducting the full range of SOF activities?
- 5. <u>Tactical Actions vs. Strategic Results</u> Has there been a disconnect between our tactical actions and our strategic intentions during the war on terror? If so, are we resolving it? What have the strategic lessons been? Are we able to improve our strategic success without making major changes across the interagency? What types of strategic metrics should we use? How can SOF better assess and operate using measures of strategic performance?
- 6. <u>Conflict Prevention</u> Are the deterrence-based theories behind the US National Security Strategy adequate to address the current and future strategic environment? Are they appropriate for state and non-state actors? Is the competition and conflict we are currently experiencing necessarily detrimental to US National Security Strategy? Is prevention of conflict practical? If so, what would a "Prevention Approach" entail? How could USSOCOM facilitate a new Prevention Approach?
- 7. <u>Human Nature vs. Culture</u> Have we focused too exclusively on the role of culture in attempting to explain recent crises? Are the problems we will face in the future more firmly rooted in human nature or human cultures? Is the answer to this question important for our strategic approach? For a force that distinguishes itself on understanding language, regional expertise, and culture (LREC), how does SOF incorporate/use aspects of fundamental human nature in its activities?
- 8. **Risk Management** In what areas does the US face a great deal of risk, given current and projected resourcing? USSOCOM? Which areas are critical? In what areas are we able to accept risk? In what areas must we "buy down" risk to maximum extent possible? What are the most effective risk-management strategies available?
- 9. <u>Interest-Based Strategies</u> How can the US best position itself to preserve and build upon a network of actors with interests that are congruent with our own? How do we ensure stability of this

network as governments change and adjust to the demands of their populations? How should USSOCOM posture itself to support an "interest-based" approach?

- 10. <u>Weapons Technology Proliferation</u> How are the proliferation of innovation and the falling cost of weapons and dual-use technology changing military balances of power? How does advanced weaponry in the hands of non-state actors change the dynamic for SOF activities?
- 11. **Disruptive & Game-Changing Technologies** What disruptive & game-changing technologies have potential global significance? How will these emerging technologies impact future conflict? How does SOCOM leverage game changing technologies to advance SOF operations? Is SOCOM's acquisition process positioned to capitalize on rapid fielding of untested, potentially disruptive technology?
- 12. <u>Adaptability & Agility</u> Is the SOCOM enterprise an adequately flexible system capable of rapid change (in whole or in parts) when required? What "best practices" can be implemented to maximize our ability to generate capacity and capability when needed? How does USSOCOM position itself to provide the widest options possible for policymakers?
- 13. <u>Capability Gaps</u> Are the methods that the DoD and USSOCOM use to determine gaps in required capabilities adequate and appropriate for the current strategic environment? How do we balance effectiveness and efficiency? Are their widening gaps in any critical capabilities that we have been unable to address?
- 14. <u>Long-term Fiscal Constraints</u> Do the growing fiscal constraints in industrialized nations affect their perceptions of their interests and appropriate security posture? Are military alliances and partnerships likely to undergo changes due to fiscal pressures? Will powerful states be less likely to offer security guarantees? What types of military commitments will states be willing/unwilling to make for less-than-vital interests? Should this affect US policy? Basing? Beyond SOCOM-specific budgetary pressures, how does the wider financial pressure affect SOCOM/SOF and are there opportunities upon which to capitalize?
- 15. <u>Strategic Constraints</u> Does our strategic culture blind us to potential threats, sources of risk, and opportunities? Does our national security process have a similar effect? How can USSOCOM avoid overly restricted solutions to problems that are poorly defined or understood due to these constraints?
- 16. <u>Demographics</u> How does the rise of the middle class in developing nations affect the security threats and opportunities in those countries? What are the most dangerous population shifts or migrations on the horizon? What are the implications of "youth in revolt" in fragile states (situations in which youth lose touch with their culture as families are torn apart by conflict and respond in ways that separate them from traditional guidance)? Does the changing role of women in unstable regions have SOCOM implications?
- 17. **Energy/Other Resources** How will changes in energy harvesting and consumption alter the global security environment? How will rising energy consumption in emerging nations alter the strategic landscape? How will competition over other resources (food, water, etc) shape conflict in manners that have implications for USSOCOM?

POCs:

LTC Tom Nagle, <u>J5KSIL@socom.mil</u>, 813-826-3132 Mr Bob Jones, <u>J5KSIL@socom.mil</u>, 813-826-1294

WMD Question: Are current policies and actions advancing or undermining our counterproliferation intentions? Are the incentives for the acquisition and/or use of WMD rising or subsiding at the state level? What about the incentives for transfer of WMD to non-state actors? How can the US favorably change these incentives? How can USSOCOM better contribute to counter-proliferation efforts?

The objective of this research topic is to develop new insights across the breadth and depth of counter-proliferation efforts. Enabling technology for WMD is increasingly accessible for a range of actors and counter-proliferation capabilities are not keeping pace. Therefore, incentives/disincentives for acquisition remain paramount. Sanctions have not proven especially effective in deterring some states from developing WMD capabilities. Enforcing global "rules" for possession of such weapons is also difficult in an era where states and populations are especially sensitive to any perceived infringement upon their sovereignty. The US's counter-proliferation effort is evolving and our need for greater understanding of the associated issues is growing. The majority of our current counter-WMD efforts are aimed at nuclear proliferation, while growing evidence indicates that it is other forms of WMD that will be more problematic. †

Themes of interest include:[‡]

- Evolving incentives for transfer.
- Options for preventing or deterring proliferation.
- Systemic evaluation of the US's counter proliferation program.
- Evolution of WMD policies, especially those associated with rogue states and non-stateactors.
- Implications of US/UN proliferation policies on emerging states.
- Options to manage expanding membership to the "nuclear club."
- Achieving the appropriate balance between nuclear, biological, chemical, cyber and EMP counter proliferation efforts.
- Potential advantages of focusing policy on management of consequences of possession.
- Evolving definitions of WMD. What is the next possible WMD? Most dangerous? Most Likely?
- Can we adequately survive/recover from a WMD event?

[†] With any project undertaken on the topics discussed throughout this paper, or variations on these topics, we would be interested in discussing and/or reading the authors' perspectives on the implications for USSOCOM and/or the Department of Defense in general.

[‡] This list is not exclusive. Fruitful avenues that raise issues not discussed in these themes are also of interest and value.

Information/Digital Age Question: Does the Information/Digital Age impact the nature of stability? What are the implications of increasingly numerous empowered individuals? How does information transparency affect the interactions of states? What are the implications for our military operations and engagements? Are there opportunities? What are the specific implications for SOF in Cyber Warfare?

The objective of this research topic is to develop new insights into how the information and digital age is changing the nature of the global strategic environment. Cyber tools are changing the relationships among and between individuals, informal groups, non-state actors, and states. Individuals and groups have been empowered by the accessibility of the Internet and social media, which has in turn driven rapid social change. States' ability to adapt and respond to powerful narratives that emerge through these tools has been increasingly challenged by their speed, scope, and reach. Governments are also struggling to safeguard state secrets; sensitive information is increasingly vulnerable to disclosure. While the information and digital age may once have been an advantage to the U.S., it now finds itself struggling to keep up with the latest advances quickly spreading across the globe through the private sector.

- Implications for governance and regional stability.
- Falling cost of network development for non-state actors.
- Social media networks and cultural impacts.
- Development and leverage of distributed populations.
- Grievance mobilization; recruitment to causes/networking.
- Influence of "virtual" leaders.
- Effects on state decision cycles.
- Ability of US to influence narrative/info wars.
- Appropriate vs. needed US Government authorities in the cyber realm.
- Impacts on the relationship between states and non-state actors.
- OPSEC issues and bureaucratic practices (inability to change/update/procure systems appropriately).
- Security of personal information.
- State secrets and malignant disclosure.
- Cost/benefits of open information sharing.
- Crowdsourcing and intelligence analysis.
- US vulnerability to Cyber-attack, and appropriate military preparation/response.

Power Distribution and Diffusion Question: Is the nature of power changing on the international stage? If so, is it doing so uniformly (i.e., is there a common understanding of "what matters" across regions)? Are power shifts creating a higher likelihood of conflict? If so, among and between which groups? Are today's shifts in power unique, or largely similar to historical experience? How does this change how SOCOM/TSOCs/SOF conduct engagements and the range of SOF activities?

The objective of this research topic is to further develop our insights into how new power relationships are shaping the strategic environment. There are two main areas of interest on this question: internal and external power shifts. Internally, governments are increasingly challenged to meet the demands placed on them by populations that are becoming more aware of their relative circumstances. The disaffected are better able to organize using modern communications capabilities and pressure governments through either violent or non-violent means. Externally, regions with shifting power among states are likely to face turmoil. Even if a rising power intends to do so peacefully, the established power may act to preserve its position through violent means. It becomes more difficult to discern how governments facing multiple pressures both internally and externally are likely to interpret their interests and predict their actions. Stable relationships may degrade quickly under these conditions. Building a stable network of partners requires an alignment of interests; these interests may shift dramatically in the current environment and affect US strategy. How does the US deal with challenges to its power?

- Diffusion of power from traditional centers to new players.
- Associated impacts on interest alignment.
- Changes in the nature/sources of power regionally or globally.
- Implications for US partners in terms of policy and military activities.
- The role of relative and/or absolute power gains in today's world.
- Changes in the viability of security umbrellas (conventional and nuclear).
- Evolving constraints on power.
- Evolving utility of the use of force.
- Changing utility of types of military power.
- Approaches to resolving power struggles.
- Changes in the role and influence of international institutions.
- Challenges to Westphalian order, and ability of states to respond.
- Ability of states to resolve internal power struggles.
- The viability of mediator roles for the US.
- The relationship between power shifts and US interests and/or security.
- The relationship between business and states' ability (or inability) to exercise power.
- Implementing effective strategies given changing contexts of power.

Megacities Question: Do rapidly growing cities with massive urban slums pose a substantial challenge to vital US national interests? What are the critical distinctions between such cities in developing versus developed nations? What is the basis of control/power/influence within a megacity? Who is most likely to wield it (governments, gangs, tribes, or anarchy)? Is it possible to create advantageous strategic effects under these conditions? Is the megacity environment unique for SOF? If so, what capabilities are required for understanding it and conducting the full range of SOF activities?

The objective of this research topic is to develop new insights and understanding of rapidly growing, hyper-connected megacities. This effort is based upon creating an understanding of the major trends at work in the early 21st century: population growth, urbanization, littoralization, and vastly increased electronic connectivity. Between 2012 and 2040, the world population is estimated to grow by 2.2 billion, but that growth will not be evenly distributed. Urban environments in littoral areas in the developing world will account for a significant portion of additional population growth, and draw in almost 1 billion rural-to-urban migrants, increasing the developing world's urban population by more than 3 billion. These urban environments will consist of large, densely populated under-governed urban areas with dramatically increased electronic connectivity. Such an environment will account for drastic changes in demographics that are themselves sources of conflict for formal governance and wide opportunities for corruption, violence, and unrest (youth, unemployment, wealth disparity, disease, access to healthcare, sex distribution, etc). At the same time, greater connectivity between individuals able to share views and import ideas from regions beyond megacities increasingly allows violence, unrest, and extremist views to rapidly spread in densely populated urban areas with negative effects on the stability of megacities.

- Perceptions vs reality on opportunities in megacities.
- Defining US interests in megacities.
- Differences between cities and organized states.
- State's power vs. city's local influence and power (preeminence struggle?).
- Role/impact of overlapping jurisdictions.
- Relationship between formal city core and informal periphery.
- Immigration integration/culture clashes.
- Competing methods of informal leadership and influence.
- How to develop relationships with informal leadership structures/players.
- Ability of US to balance relationships with cities and owning states.
- Role of demographic issues in exacerbating problems (econ, political).
- Natural disaster consequences and response.
- Potential trends that reverse/increase/change migration to cities.
- Stress on surrounding resource system as cities grow.

Tactical Actions vs. Strategic Results Question: Has there been a disconnect between our tactical actions and our strategic intentions during the war on terror? If so, are we resolving it? What have the strategic lessons been? Are we able to improve our strategic success without making major changes across the interagency? What types of strategic metrics should we use? How can SOF better assess and operate using measures of strategic performance?

The objective of this research topic is to further develop our insights into why tactical programs and activities intended to produce certain enduring effects during the US response to the attacks of 9/11 have, by and large, fallen short of those objectives. Assessing the effectiveness of operations has been a deliberate activity since World War II, with a heavy emphasis on quantitative measures emerging in the Vietnam era. Various approaches (systems analysis, effects-based operations, etc) have fallen short in establishing compelling tactical metrics to desired strategic effects. There are a variety of factors that may contribute to this effect. This topic is intended to spur research into discrete areas, such as the effect of using tactical metrics to drive strategic effects, as well as into cross-cutting analysis that assesses how current thinking on operations assessment may impact strategic progress.

- The benefits and risks of employing immediate, local, objective measures of tactical performance to predict strategic progress.
- The benefits and risks of employing measures that are more subjective, broader in area, and accrue over time in an effort to give a better sense of strategic progress.
- Exploring how prioritizing tactical metrics may undermine strategic objectives.
- Exploring how assumptions of rationality may mislead tactical actions.
- Aspects of human nature as a framework for assessing strategic progress.
- The development of a family of indicators of strategic progress that is naturally occurring, and easily collected and reported.
- The appropriateness of current labels (such as regular and irregular warfare) for understanding conflicts.
- Comparing and contrasting measures of strategic performance in "state-based conflicts" and "populace-based conflicts."
- What would a Counter-UW strategy consist of? Would it be more appropriate than the more traditional responses (Counter-Terrorism, Combatting Terrorism, Irregular Warfare, etc)?
- Have policy decisions to preserve regimes deemed as good, or to remove/replace regimes deemed as bad, created infeasible conditions in the current strategic environment for achieving the strategic goals desired?
- Is stability of governance (requiring changes that may increase short-term risk to US interests) more important than stasis of government for long-term US interests?
- How do changes in the strategic environment affect how we think about the strategies and tactics best suited to secure our interests?

Conflict Prevention Question: Are the deterrence-based theories behind the US National Security Strategy adequate to address the current and future strategic environment? Are they appropriate for state and non-state actors? Is the competition and conflict we are currently experiencing necessarily detrimental to US National Security Strategy? Is prevention of conflict practical? If so, what would a "Prevention Approach" entail? How could USSOCOM facilitate a new Prevention Approach?

The objective of this research topic is to develop new insights into which approaches are appropriate for achieving US national security objectives in the current and future strategic environments. It is possible that a heavy emphasis on a deterrence-based security approach is not adequate or appropriate, given the current and emerging strategic environment. Further, any potential successes in deterring conflict are difficult to measure or even understand, particularly given information that has come to light from the Soviet archives that indicate our assumptions on their rationality were unfounded. Simply deterring an undesirable event does not necessarily address underlying causes or grievances that may fester under conditions of artificially-imposed stability. The absence of conflict does not indicate the absence of threats to US interests, and the costs associated with maintaining a status quo that is threatened in multiple dimensions grow quickly. A more comprehensive conflict "prevention approach" may provide a way to complement or replace the heavy emphasis on deterrence. A thorough examination of both approaches is required to improve strategy for the current and emerging strategic environment.

- Viability of modern deterrence strategies in the current / emerging strategic environment.
- US security costs and benefits from conflicts and competition.
- Elements of a prevention-based approach.
- Determining the costs and benefits of a prevention approach.
- Exploring the relationship of prevention and deterrence. Are they complementary or in conflict?
- The role of prevention and deterrence at the tactical and strategic levels.
- Advancing US interests through prevention and/or deterrence.
- Appropriateness of systemic assumptions (i.e., rational, unitary actors).
- Assessing the success of deterrence and/or prevention.

Human Nature vs. Culture Question: Have we focused too exclusively on the role of culture in attempting to explain recent crises? Are the problems we will face in the future more firmly rooted in human nature or human cultures? Is the answer to this question important for our strategic approach? For a force that distinguishes itself on understanding language, regional expertise, and culture (LREC), how does SOF incorporate/use aspects of fundamental human nature in its activities?

The objective of this research topic is to further develop our insights into a more comprehensive socio-cultural awareness. We recognize that one must understand the culture where one operates to implement effective tactical programs, but should also explore the possibility that there are common aspects of human nature across cultures that are equally necessary to understand. This would assist in developing strategic concepts and frameworks that lend context and focus to tactical actions. As people become increasingly empowered to informally challenge formal power structures through legal means if available, or illegal means if necessary, an understanding of human nature may help develop a clearer understanding of these types of problems and conflicts.

- The distinctions and commonalities between societies that are unstable and those that are stable.
- The distinctions between "naturally" stable and "artificially" stable societies.
- Commonalities across cultures with origins in human nature.
- The distinction between political legitimacy and popular legitimacy in relation to stability.
- The distinction between political sovereignty and popular sovereignty in relation to stability.
- The sufficiency, value, and role of various legal mechanisms in fostering stability across cultures.
- Is political conflict internal to a system of governance distinct from political conflict between systems of governance? How so, and so what?
- Do aspects of human nature provide strategic indicators for the health/stability of a society?
- How can SOF track strategic indicators while concurrently developing cultural awareness to improve tactical performance?

Risk Management Question: In what areas does the US face a great deal of risk, given current and projected resourcing? USSOCOM? Which areas are critical? In what areas are we able to accept risk? In what areas must we "buy down" risk to maximum extent possible? What are the most effective risk-management strategies available?

The objective of this research topic is to develop insights on the best practices for managing risk and pursuing a strategy in a rapidly changing environment. Globalization has created a more complex world, made up of a tangled web of relationships and other interdependent factors. Accurately predicting the types of threats and unforeseen events we must contend with is increasingly difficult. Current practice across the national security apparatus closely ties risk directly to threats; new "risks" (interpreted as threats) require new capabilities or programs to counter them. The wider range of potential crises, however, leads to a longer list of capabilities and capacities to optimally respond. Budget constraints prevent the US from mitigating risk simply through identifying additional resource requirements. Though there has been a higher emphasis on "flexibility" as an approach to mitigate risk in recent years, multi-role platforms and capabilities that possess that trait are increasingly expensive. An approach that provides a better method of assessing risks associated with strategic choices and weighing trade-offs across the options will better support decision-making.

- Opportunity costs.
- Resource management and prioritization.
- Improving risk assessment methodologies.
- Emerging sources of military and political risk.
- Opportunities for controlling risk.
- Errors in risk assessment and response.
- Organizational issues in effective risk management processes.
- Linking risk to strategy.
- Utility of measurements for levels of risk.
- Options to transfer/share risk with partners.
- National security equivalents of diversification or other risk management strategies.
- Multipurpose weapons platforms capabilities and pitfalls.

Interest Based Strategies Question: How can the US best position itself to preserve and build upon a network of actors with interests that are congruent with our own? How do we ensure stability of this network as governments change and adjust to the demands of their populations? How should USSOCOM posture itself to support an "interest-based" approach?

The objective of this research topic is to develop insights into an interest-based approach to strategy (national government, service, or combatant command). This includes examining how interests are derived from organizational values, norms, and morals. If some interests change over time, shaped by evolving cultures, fortunes and current events, are there vital interests that endure? As the global situation shifts due to power distribution and diffusion, a country's interests may change to meet the new power arrangements. This can put a country at odds with former "partners" who used to have shared interests and bring former "threats" into closer alignment. Another aim of this topic is to explore relative advantages of other approaches to strategy; for example, threat-based, or influence-based strategies. Lastly, documents such as the National Security Strategy and National Defense and Military strategies describe US National interests. As a functional combatant command with global reach, USSOCOM is in a unique position to support vital national interests in both direct and indirect manners. How USSOCOM can best provide this support may shift over time as the global environment evolves.

- Defining interests of states, individuals and other actors.
- Utility of broad ideological vs narrow pragmatic interests.
- Realism vs liberalism.
- Evolution of US Grand Strategy.
- Influence of partners' interests on achieving our own interests.
- Incongruence between values and interests or how to better align values and interests.
- Utility of, or problems with, "special relationships" to an interest-based strategy.
- SOF contribution to national interests beyond counterterrorism and counter-WMD.
- Dangers of over-reliance on threat-based strategic approaches to address current events.
- Concept of near, mid and long term strategy-making to address vital and important national interests.
- Reconciliation of divergent interests with partners.
- Can an interest-based strategy compete in the budgetary process with a threat-based approach?

Weapon Technology Proliferation Question: How are the proliferation of innovation and the falling cost of weapons and dual-use technology changing military balances of power? How does advanced weaponry in the hands of non-state actors change the dynamic for SOF activities?

The objective of this research topic is to develop new insights into how innovation proliferation, low-cost weapons and dual-use technologies will impact the changing military balances of power. As recent history has proven, innovation and dual-use technologies can be stolen or appropriated by hostile military powers. Similarly, certain non-state actors and individuals will seek to acquire and exploit dual-use technological innovations and low-cost weapons. As the complexity of technological innovations continue to increase at an exponential rate, the universal appetite for these advancements is unlikely to wane. Existing control mechanisms such as international regulations and security arrangements may be insufficient to stem the tide of proliferation over time. The risk associated with the proliferation of certain technologies or weapons could potentially jeopardize global security and stability. Such an environment may compromise the comparative technological advantage enjoyed by the U.S. military, and eventually tip the scale of power.

- New applications of emerging technology.
- Impacts of multiple centers of weapons innovation across the globe.
- Sufficiency of international agreements to control detrimental effects.
- Cost-effective responses to new technological challenges.
- Appropriateness of exquisite, multi-role weapon platforms in a world of rapid innovation.
- Areas of the globe at highest risk due to technological innovation in weapons.
- Potential changes to US industrial base.
- How to adapt DoD to benefit from weapons innovation.

Disruptive Technologies Question: What disruptive & game-changing technologies have potential global significance? How will these emerging technologies impact future conflict? How does SOCOM leverage game changing technologies to advance SOF operations? Is SOCOM's acquisition process positioned to capitalize on rapid fielding of untested, potentially disruptive technology?

The objective of this research topic is to develop new insights into emerging disruptive and game-changing technologies that could have global significance and/or impact on future conflict. Emerging disruptive technologies, particularly ones with broad applications, have the potential to transform existing markets or create new ones. When applied to a military problem, game-changing technologies can disrupt existing doctrines or TTPs and radically alter the balance between competitors. As the pace of technological development continues to accelerate, competitors will strive to integrate innovative technology to gain an advantage. More broadly, opportunities created by new technologies will alter societies in unforeseen ways, as social media has.

- Space exploration.
- Nanotechnology and wetware.
- 3D printing.
- Cyber innovations.
- Human enhancements.
- Multi-nation weapons procurement programs.
- Bioengineering.
- Agro engineering.
- Impacts on Position, Navigation, and Timing (PNT).
- A day without... (pick a technology).

Adaptability and Agility Question: Is the SOCOM enterprise an adequately flexible system capable of rapid change (in whole or in parts) when required? What "best practices" can be implemented to maximize our ability to generate capacity and capability when needed? How does USSOCOM position itself to provide the widest options possible for policymakers?

The objective of this research topic is to develop new insights into USSOCOM's ability to generate capacity and capacity to meet, protect, and advance U.S. national interests. Special Operations Forces are commonly viewed as the force of choice when considering small footprint, cost effective, tactical operations that create strategic effects. In the last thirteen years, the USSOCOM Enterprise has grown from 25,000 to nearly 69,000 personnel. This growth has enabled SOF to operate further, in greater capacity, and in more regions of the world than ever before. However, this growth in capacity does not come without consequences...particularly as the United States enters a period of fiscal austerity. The 2014 Quadrennial Defense Review is primarily focused on rebalancing the Joint Force, which includes reducing force structure of the services. Special operations rely heavily on the Services to provide enabling support. Cuts to the Service's force structure will impact Special Operations not only in enabling support, but in recruitment as well. The degree to which these cuts will impact SOF is yet to be determined. However, the USSOCOM Enterprise will need to develop innovative approaches to not only maintain its own capability and capacity, but adapt to a leaner Service capacity that could impede USSOCOM's activities.

- Bureaucratic and Service preferences.
- Barriers to innovation.
- SOF Truths vs. evolving strategic landscape.
- Developing capabilities and capacities prior to crisis.
- Effects-based management and development of force.
- Defining a SOF narrative for the future (preparing for, preserving peace).
- Small-footprint, cost effective approaches.
- Integrating SOF into Service, GCC strategies.
- Alternative structures for optimal organization, management, recruitment of SOF.
- Pushing "Joint" down to lower levels in SOF.

Capability Gaps Question: Are the methods that the DoD and USSOCOM use to determine gaps in required capabilities adequate and appropriate for the current strategic environment? How do we balance effectiveness and efficiency? Are their widening gaps in any critical capabilities that we have been unable to address?

The objective of this research topic is to develop new insights into how the Defense Department in general, and USSOCOM more specifically, might better anticipate and respond to identified capability gaps. Although many observers of the strategic environment have pointed to fundamental changes that are occurring, the processes by which we prioritize and procure capabilities (materiel or otherwise) have remained basically unchanged for decades. Given lengthening procurement timelines and routine budgetary problems with major weapon systems, the DoD will eventually need to reexamine the methodologies that we employ to appropriately resource our strategies. Further, it is appropriate to explore whether the processes by which gaps are identified are adequately connected to a guiding strategy, and not dominated by more narrow bureaucratic preferences.

- DoD/SOF narrative, determining how best to employ forces.
- Balancing current demands against developing future needs.
- How to best determine/measure gaps. Threats? Opportunities? Other possibilities?
- Identifying and designing capability requirements.
- Role of understanding and design for capability requirements.
- Controlling bureaucratic preferences.
- Innovation in capabilities during fiscal constraints.
- Current, unaddressed capability gaps.
- Approaches in prioritization of requirements (no fail missions, enhancing capabilities, etc.)
- Balancing effectiveness against efficiency.
- The responsiveness of the requirements process.

Long-Term Fiscal Constraints Question: Do the growing fiscal constraints in industrialized nations affect their perceptions of their interests and appropriate security posture? Are military alliances and partnerships likely to undergo changes due to fiscal pressures? Will powerful states be less likely to offer security guarantees? What types of military commitments will states be willing/unwilling to make for less-than-vital interests? Should this affect US policy? Basing? Beyond SOCOM-specific budgetary pressures, how does the wider financial pressure affect SOCOM/SOF and are there opportunities upon which to capitalize?

The objective of this research topic is to develop new insights into how growing fiscal constraints across developed nations will impact their security posture and the security environment writ large. Despite a variety of security challenges, the US and other industrial nations are reducing defense spending. Economic recovery from the global recession of 2007-2009 has not been sufficiently robust to avoid spending cuts. Such an environment may force nations to reevaluate the interests for which they are willing to deploy military forces. Reduced commitments and security arrangements among partner nations may shape the strategic environment in unforeseen manners.

- Uneven global economic recovery and security impacts.
- New and shifting regional economic and security agreements important to the US.
- Trends in responses to pop-up crises.
- Nuclear aspirant states and the changing role/manner of deterrence.
- The viability of massive weapons programs (F-35, K-46, Littoral Combat Ship, etc.) in this environment.
- Shifting state perceptions of "vital national interests" vs. "less-than vital."
- Emerging multi-polarity, or multiple power vacuums?
- Shifts in the nature of military responses in lower-intensity situations (air power, special operations forces, drones).
- Impacts on the viability/credibility of security umbrellas.
- The effect of this security environment on incentives for other states to acquire conventional or unconventional weapon capabilities.
- Cost-effective strategies for the US and partner nations to protect interests.
- Changes in support to multinational organizations and associated effects.
- The role and relationship of economic power to military power (is this changing?).
- The sufficiency of Goldwater-Nichols today; is there a next step for Service interdependence?
- The viability of burden sharing in a world with widely diverging interests and economic disruption.

Strategic Constraints Question: Does our strategic culture blind us to potential threats, sources of risk, and opportunities? Does our national security process have a similar effect? How can USSOCOM avoid overly restricted solutions to problems that are poorly defined or understood due to these constraints?

The objective of this research topic is to develop new insights into how the idea of constraints affects strategy development. Constraints can either be self-imposed or forced upon us from the system we operate in. The cultural biases of the military and the Department of Defense influence our strategic performance. Organizational culture theories suggest that our point of view on particular issues restricts our ability to perceive the full array of options available. Without the benefit of considering all relevant possibilities, our strategic performance may be degraded. Additionally, the United States' position as a global leader ties us to the international political system and its processes which put constraints on our actions. Furthermore, our domestic system has legal, moral, political and social constraints that affect our strategic outlook and subsequent plans to address national security issues. This topic is intended to assist in identifying sources of potential blind spots and constraints and locating effective and acceptable ways to provide new perspectives and approaches on enduring problems. USSOCOM must recognize the constraints we operate within in order to develop better strategic approaches.

- Definition of constraint and its implications for the military and USSOCOM, specifically.
- The impact of organizational culture on decision-making.
- Improving information-search heuristics.
- Current problems and identifying new perspectives.
- Constraints of the international, domestic systems.
- How does an organization develop a holistic strategy that accounts for constraints?

Demographics Question: How does the rise of the middle class in developing nations affect the security threats and opportunities in those countries? What are the most dangerous population shifts or migrations on the horizon? What are the implications of "youth in revolt" in fragile states (situations in which youth lose touch with their culture as families are torn apart by conflict and respond in ways that separate them from traditional guidance)? Does the changing role of women in unstable regions have SOCOM implications?

The objective of this research topic is to develop new insights into global demographic trajectories and the resulting implications for US interests. As globalization and other factors create the conditions for a rising middle class in developing nations, it can also support the expansion of conflict. Immigrants fleeing conflict, or moving to regions with better opportunities, can challenge their new governments' ability to respond. More affluent societies with higher educational levels typically have lower birthrates than immigrant groups from developing nations, which contributes to social stresses. Europe is currently experiencing a range of problems associated with an inability to adequately integrate new arrivals. Angry unemployed youths have frequently taken to rioting, and immigrant groups are often isolated from both the larger society as well as their heritage. Is it possible for the US to favorably shape the trends associated with this challenge?

- Relationship to US interests.
- Interacting system (of demographic trends) or single-factor causality?
- Globalization.
- Education relative to birth rates.
- Transnational organized crime.
- Integration and resolving cultural stresses created by migration.
- Response of organic population to demographic shifts (cultural?).
- Politics of blame and out-groups.
- Perceived opportunities leading to permanent or temporary migration.
- Youth bulges, unemployment, dissatisfaction relative to governance.
- Technological empowerment of isolated immigrants.
- Changing patterns in connections across diaspora communities.
- Needs vs. Demands vs. Expectations of growing middle class on basic services, commodities, energy.
- SOF implications in fragile states, shifting populations.

Energy / Other Resources Question: Will changes in energy harvesting and consumption alter the global security environment? Will rising energy consumption in emerging nations impact the strategic landscape? Will demand for other resources (food, water, etc.) shape conflict in manners that have implications for USSOCOM?

The objective of this research topic is to develop new insights into energy and natural resource trends, the associated regional and global security impacts, and the implication for special operations. Many consider access to energy and other natural resources a critical element to international relations and assert that it has been a principal catalyst for conflict and war. Continued growing global demand for resources strains current distribution capabilities and depletes known reserves. Other changes in the energy and natural resources strategic environment may also impact the international order, perpetuating old struggles and possibly conflict among a new set of global actors.

- Shifts in regional power and world order.
- Political stress points.
- Economic competition.
- Global corporations.
- Nascent, alternative markets.
- Probable technological breakthroughs (enabling new energy sources or retrograde fuels).
- Cultural and social aspects.
- NGOs and trans-national power structures.
- Climate and environmental pressures.
- Developing versus developed nations.
- Trends in self-sufficiency and dependency.
- Sources and distribution networks.
- Vulnerability of critical energy infrastructure.
- Potential humanitarian crisis points.
- US presence and response.
- Opening of "new" frontiers: Arctic; Antarctica; Amazonia; Andes, Asia, Pacific; space/lunar; etc.